5

20

25

30

## Claims

- 1. A device for sealing a web (2) of material, comprising means (4) for emitting ultrasonic radiation, and contact means (5) acting in conjunction with the emitting means (4) in a sealing area, the device being characterised in that the contact means (5) are equipped with at least one cutting surface (10) designed to interact with a matching cutting surface (14) of a sealing end (12) of the emitting means (4) so as to simultaneously seal and cut the web of material (2).
- 2. The device according to claim 1, characterised in that the cutting surface (10) is defined by a sharp edge (9) of a protuberance (8) of the peripheral surface (6) of the contact means (5).
- 3. The device according to claim 1 or 2, characterised in that the contact means (5) comprise a contact roller (5).
  - 4. The device according to claim 3, characterised in that the sharp edge (9) is the edge of a protuberance (8) of the cylindrical peripheral surface (6) of the roller (5).
    - 5. The device according to one or more of the foregoing claims, characterised in that the cutting surface (14) of the means (4) consists of a sharp cutting edge (14) of the sealing end (12).
    - 6. The device according to one or more of the foregoing claims from 1 to 5, characterised in that the cutting surface (14) of the means (4) consists of a sharp cutting edge (14) of a stepped surface (13) of the sealing end (12).
    - 7. The device according to claim 6, characterised in that the stepped surface (13) has a quadrangular cross section.
- 8. A device (4) for emitting ultrasounds for sealing a web of material (2), comprising a sealing end (12), characterised in that

WO 2004/091894 PCT/IB2004/001252

6

said sealing end (12) has a cutting surface (14) for cutting the web (2).

9. The device according to claim 8, characterised in that the cutting surface (14) consists of a sharp cutting edge (14) of a stepped surface (13) of the sealing end (12).

5

10. The device according to claim 9, characterised in that the surface (13) has a quadrangular cross section.